

## **WISCONSIN HIGHWAY RESEARCH PROGRAM 2011-2015 Strategic Plan**

The Wisconsin Highway Research Program was established in 1998 by the Wisconsin Department of Transportation in collaboration with the University of Wisconsin-Madison to discover better ways to design, build and reconstruct the state's highways. WHRP research projects are selected and overseen by collaborative committees that include WisDOT, academia, industry, consulting engineers and the Federal Highway Administration. Through rigorous testing of innovative materials and methods, WHRP research leads to improved performance and service life of Wisconsin's pavements and bridges.

The **MISSION** of the WHRP is to improve the roads in Wisconsin by delivering thoughtful and timely research findings for implementation.

The WHRP strategic plan is organized in three broad emphasis areas:

1. Maintaining the value and relativity of the program;
2. Ensuring the validity and applicability of the research; and
3. Enhancing the management and conduct of the projects.

### **1. Maintaining the value and relativity of the program**

WHRP must provide value to and represent the needs of Wisconsin transportation stakeholders while also maintaining good coordination with regional and national initiatives. The program will work to leverage funding from all available sources. WHRP will also maintain relevant and effective communication efforts to share the benefits and opportunities of the program.

- WHRP will continue to maintain strong ties to academia, industry and public agencies that represent Wisconsin's highway system. In 2011-2015, the program will also examine ways to proactively share information with local agencies.
- The program will continue its effective utilization of federal and state research funds. In 2011-2015, WHRP will examine opportunities to enhance the funding available to projects and the program. This may include increased participation in federal pooled funds as a lead state or participant program; pursuit of matching funds; and consideration of in-kind contributions.
- WHRP will work to effectively reach out to regional and national research initiatives and partners to share information and promote utilization of research ideas, including through these specific opportunities and organizations:
  - Federal and regional concrete or asphalt "roadmap" initiatives;
  - The Transportation Engineering and Road Research Alliance (TERRA);
  - The National Cooperative Highway Research Program (NCHRP);
  - The Transportation Research Board (TRB);
  - Federally designated University Transportation Centers with ties to Wisconsin; and
  - Other university-based transportation research centers with ties to Wisconsin.

### **2. Ensuring the validity and applicability of the research**

WHRP must continue to conduct technically valid and relevant research with results that can be applied to designs, standards and practices at the Wisconsin DOT and for its partners and stakeholders.

- WHRP will continue to develop and conduct meaningful research in the four core topical areas of flexible pavements, rigid pavements, geotechnics and structures.
- The program will examine the most appropriate oversight structures and projects to address research in other key topical areas, including the following:
  - Rapid construction methods;
  - Friction and noise characteristics of pavements;
  - Life-cycle assessments for pavements and structures;
  - Pavement preservation;
  - Environmental issues, sustainability and “green” highway initiatives; and
  - Emerging technologies for imaging, visualization, construction and other practices.
- WHRP will work to enhance technology transfer efforts and create new outreach opportunities that help streamline and facilitate the practical application of research findings to the Wisconsin DOT and the entire transportation community.

### **3. Enhancing the management and conduct of the projects**

WHRP must be managed effectively and use public resources wisely. The program also provides a unique opportunity for staff, management and partners from a variety of disciplines to work together and improve individual and team skills. In 2011-2015, WHRP will undertake initiatives to further build on a well-managed and efficient program.

- In conjunction with other WisDOT research programs, managers will implement new project and program management tools to effectively monitor and measure the performance of projects and researchers, track outcomes of projects and document the impacts of research.
- WHRP will continue to develop and use a variety of tools and technologies to facilitate the involvement of staff, managers and partners in projects while understanding the ever-growing demands on the time and resources of all involved with the program.
- The program will examine its methods and processes to distribute information about completed research to ensure that it effectively reaches partners and stakeholders with a variety of communication needs in a global context.